

**Tracy John Mincer**

Marine Microbiologist and Chemist

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**Education:**

B.S. Chemistry/Biochemistry, University of California, San Diego. Spring, 1995

Ph.D. Oceanography, Scripps Institution of Oceanography, University of California, San Diego. Advisor, Professor William H. Fenical. Degree awarded Fall 2004

**Professional Experience:**

**Staff Research Associate I/II**, University of California San Diego, Department of Biology, Laboratory of Professor Donald R. Helinski. Spring 1995 - Fall 1998

**Postdoctoral Associate/Lecturer**, Massachusetts Institute of Technology. Advisor, Professor Edward F. DeLong. October, 2004- March, 2008

**Assistant/Associate Scientist**, Woods Hole Oceanographic Institution, Department of Marine Chemistry and Geochemistry, June 2008 – Present

**Selected Awards and Recognition:**

**Pre-doctoral Fellowship**, Living Oceans Foundation: $ 25,000/year fellowship (Fall 2001 – Spring 2004) covering stipend and expenses, 36 months of support

**Faculty of 1000, Biology**, “Exceptional,” “Must Read” or “Recommended” critical recognition for 4 peer-reviewed publications, indicated below

**Professional Affiliations:**

Association for the Sciences of Limnology and Oceanography (ASLO) 2012–present

American Society for Microbiology (ASM) 2014–present

American Chemical Society (ACS) 2016–present

**Research Interests:**

–Chemical ecology of microbes: chemical communication, host-microbiome interactions, and deterrence of grazing

–Applications of chemical ecology for drug-discovery and biotechnology

–Mining and bioengineering of natural microbial ‘feedstocks’ for development of therapeutic small molecules and enzymes

**Patents Awarded:**

1. “Marine actinomycete taxon for drug and fermentation product discovery.”

Inventors: **Mincer, T. J.**; Jensen, P. R. & Fenical, W. H.

United States Patent number**:** 7,144,723

Issued**:** December 5, 2006

1. “Salinosporamides and methods for use thereof”

Inventors: Feling, R. H., **Mincer, T. J.**; Jensen, P. R. & Fenical, W. H.

United States Patent number:  7,176,233

Issued**:** February 13, 2007

**Patent Applications:**

1. **Mincer, T. J.** & Whalen, K. R. “Small Molecule Growth Inhibitors of Microbial Pathogens” Filed, November 8, 2016. U.S. Provisional Patent Application No. 62/419,112
2. **Mincer, T. J.** & Whalen, K. R. “Methods and Compositions for Increasing Antibiotic Activity” Full-US Patent Filed, July 13, 2015. US Application Number 14797951.

**Academic Leadership:**

Invited Editor, Special Issue of Marine Drugs: "Antibacterial Marine Pharmacology"*•* Editorial Board Member- *Frontiers in Microbiology* *•* Ad Hoc Reviewer:National Science Foundation *•* Panelist and Proposal Reviewer for National Institutes of Health- International Cooperative Biodiversity Group program *•* Reviewer:Maryland Sea Grant; California Sea Grant *•* Reviewer for: *Proceedings of the National Academy of Sciences, Applied and Environmental Microbiology, Aquatic Microbial Ecology, The ISME Journal, Environmental Microbiology, Environmental Microbiology Reports, Geomicrobiology Journal, Deep Sea Research, Limnology and Oceanography, Marine Pollution Bulletin, FEMS Microbial Letters, Journal of Chemical Ecology.*

**Current and Recent Major External Research Support:**

• NIAID-NIH, R21-R33 AI119311, Mincer (PI) 07/01/15-06/30/20

 Discovery and development of RND pump inhibitors from marine microbial sources

 $1,988,769

• Flatley Discovery Lab, Mincer (PI) 08/25/11-06/24/16

 Microbial Bioactive Natural Products from the Marine Environment

 $1,532,917

• Gordon and Betty Moore Foundation, Mincer (Co-PI with 4 other collaborators)

 10/09/12-09/30/15

 Infochemical Control of Microbial Interactions and Nutrient Cycling in the North Atlantic $2,423,000

• OCE-1131415, National Science Foundation, Mincer (PI) 09/01/11-08/31/14

 Microbial Supply and Demand of Methanol in the Marine Euphotic Zone

 $493,910

• OCE-1155671, National Science Foundation, Mincer (PI) 03/01/12-02/28/15

 Microbial Interactions with Marine Plastic Debris: Diversity, Function and Fate

 $247,908

**Peer-Reviewed Publications:**

\*corresponding or co-corresponding author; +advisee in Mincer Laboratory

39. Lee, M. D., Walworth, N. G., McParland, E. M., Fu, F. U., **Mincer, T. J.**, Levine, N. M., Hutchins, D. A., Webb, E. A. “The Trichodesmium consortium: species-level conservation and genomic signatures of co-dependency” *Submitted-In Review: The ISME Journal*, October, 2016.

38. Zhao, S.**+**, Danley, M., Ward, J. E., Li, D., **Mincer, T. J.**\* “An approach for extraction, characterization and quantitation of microplastic in natural marine snow using Raman microscopy” *Early Online Publication: Analytical Methods*, September, 2016. DOI: 10.1039/C6AY02302A.

37. Datta, M. S., Almada, A. A., Baumgartner, M., **Mincer, T. J.**, Tarrant, A. M., Polz, M. F. “Inter-individual variability in copepod microbiomes reveals bacterial networks linked to host physiology.” *Submitted-In Review: The ISME Journal*, July, 2016.

36. Krupke, A., Ossolinski, J. E., Hmelo, L. R., **Mincer, T. J.**, Van Mooy, B. A. S. ‘Quorum sensing plays a complex role in regulating the enzyme hydrolysis activity of microbes associated with sinking particles in the ocean.” Frontiers in Microbiology, April, 2016 3:55. doi: 10.3389/fmars.2016.00055

35. Gamal, A. E., Agarwal, V., Diethelm, S., Rahman, I., Schorn, M. A., Sneed, J. M., Louie, G. V., Whalen, K. E.**+**, **Mincer, T. J.**, Noel, J. P., Paul, V. J., Moore, B. S. “Biosynthesis of coral settlement cue tetrabromopyrrole in marine bacteria by a uniquely adapted brominase-thioesterase enzyme pair” Proceedings of the National Academy of Sciences (2016) vol. 113 no. 14, 3797–3802, doi: 10.1073/pnas.1519695113

34. Harvey, E. L., Deering, R. W., Rowley, D. C., Johnson, M. D., **Mincer, T. J.**, Whalen, K. E.**+** “A bacterial quorum-sensing precursor induces mortality in the marine coccolithophore, Emiliania huxleyi” Frontiers in Microbiology, February 2016. doi: http://dx.doi.org/10.3389/fmicb.2016.00059

33. **Mincer, T. J.\*** and Aicher, A. C.**+** “Methanol Production by a Broad Phylogenetic Array of Marine Phytoplankton” PLoS ONE (2016) 11(3):e0150820. doi:10.1371/journal.pone.0150820

32. Poulson-Ellestad, K. L.**+**, Harvey, E. L., Johnson, M. D., **Mincer, T. J.\*** “Exometabolomic profiling of the coccolithophore Emiliania huxleyi in response to grazing by the dinoflagellate Oxyrrhis marina” Frontiers in Marine Science, January 2016. doi: http://dx.doi.org/10.3389/fmars.2016.00001

31. **Mincer, T. J.\***, Zettler, E. R. and Amaral-Zettler, L. A. “Biofilms on Plastic Debris and Their Influence on Marine Nutrient Cycling, Productivity, and Hazardous Chemical Mobility” Chapter in the Handbook of Environmental Chemistry. Volume: Hazardous Chemicals Associated with Plastics in the Environment. Editors: Hideshige Takada and Hrissi K. Karapanagioti. H. Takada, H.K. Karapanagioti (eds.), DOI 10.1007/698\_2016\_12, Springer International Publishing Switzerland 2016

30. Amaral-Zettler, L. A., Zettler, E. R., Slikas, B., Boyd, G. D.**+**, Melvin, D. W.**+**, Morrall, C. E., Proskurowski, G., and **Mincer, T. J.\*** “The Biogeography of the Plastisphere: Implications for policy” Frontiers in Ecology and the Environment, volume 13 (10): 541-546 (2015). doi:10.1890/150017

29. Walworth, N., Pfreundt, U., Nelson, W. C., **Mincer, T.**, Heidelberg, J. F., Fu, F., Waterbury, J. B., del Rio, T. G., Goodwin, L., Kyrpides, N. C., Land, M. L., Woyke, T., Hutchins, D. A., Hess, W. R., Webb, E. A. “Trichodesmium genome maintains abundant, widespread noncoding DNA in situ, despite oligotrophic lifestyle” Proceedings of the National Academy of Sciences, volume 112 (14), pp 4251-4256 (2015) doi:10.1073/pnas.1422332112

28. Whalen, K. E.**+**, Poulson-Ellestad, K. L.**+**, Deering, R. W., Rowley, D. C., **Mincer, T. J.\*** “Enhancement of antibiotic activity against multidrug resistant bacteria by the efflux pump inhibitor, 3,4-dibromopyrrole-2,5-dione, isolated from a Pseudoaltermonas sp.” Journal of Natural Products, volume 78 (3), pp 402–412 (2015) doi: 10.1021/np500775e

27. Schmidt V.T., Reveillaud J., Zettler E., **Mincer T. J.**, Murphy L. and Amaral-Zettler L.A. “Oligotyping reveals community level habitat selection within the genus Vibrio.” Frontiers in Microbiology, 5:563 (2014) doi: 10.3389/fmicb.2014.00563

26. Apprill, A.**+**, Robbins,J., Eren, A. M., Pack, A. A., Reveillaud, J., Mattila, D., Moore, M., Niemeyer, M., Moore, K. M. T., **Mincer, T. J.\*** “Humpback whale populations share a core skin bacterial community: towards a health index for marine mammals?” (2014) 9(3): e90785. doi:10.1371/journal.pone.0090785, PLoS ONE.

25.  Wuchter, C., Banning, E., **Mincer, T. J.**, Drenzek, N. J., Coolen, M. J. L., "Microbial diversity and methanogenic capability of Antrim Shale formation waters from recently fractured wells." Frontiers in Microbiology, 4:367. (2014) doi: 10.3389/fmicb.2013.00367

24. Zettler, E. R., **Mincer, T. J.\***, Amaral-Zettler, L., “The unnatural history of the ‘Plastisphere’: Microbes on plastic marine debris.” Environmental Science and Technology, Volume 47: Pages 7137-7146, June 2013.

23. Bayer, T., Neave, M., Alsheikh-Hussain, A., Aranda, M., Yum, L., **Mincer, T. J.**, Hughen, K., Apprill, A.**+**, Voolstra, C. “The microbiome of the Red Sea coral Stylophora pistillata is dominated by tissue-associated Endozoicomonas bacteria” Applied and Environmental Microbiology, Volume 79: pages 4759-4762, July 2013.

22. Apprill, A.**+**, Hughen, K., & **Mincer, T. J.** “Major similarities in the bacterial communities associated with lesioned and healthy Fungiidae corals.” Environmental Microbiology, Volume 15: pages 2063-2072, July 2013.

21. Cordero, O. X., Wildschutte, H., Kirkup, B., Proehl, S., Ngo, L., Hussain, F., Le Roux, F.,  **Mincer, T. J.**, & Polz, M. F. “Ecological Populations of Bacteria Act as Socially Cohesive Units of Antibiotic Production and Resistance.” Science, Volume 337, pages 1228-1231, September 2012.

20. Hmelo, L. R., Van Mooy, B.A.S. & **Mincer, T. J.\*** “Characterization of bacterial epibionts on the cyanobacterium Trichodesmium.” Aquatic Microbial Ecology, Volume 67, pages 1-14, July 2012.

19. Van Mooy, B. A. S., Hmelo, L. R., Sofen, L. E., Campagna, S. R., May, A. L., Dyhrman, S. T., Heithoff, A., Webb, E. A., Momper, L. & **Mincer, T. J.** “Quorum sensing control of phosphorus acquisition in Trichodesmium colonies.” (2012) The ISME Journal, 6, 422–429.

18. Hmelo, L. R., **Mincer, T. J.** & Van Mooy, B.A.S. “Possible influence of bacterial quorum sensing on the hydrolysis of sinking particulate organic carbon in marine environments.” (2011) Environmental Microbiology 6, 682–688.

17. Van Mooy, B. A. S., Fredricks, H. F., Pedler, B. E., Dyhrman, S. T., Karl, D. M., Koblížek, M., Lomas, M., **Mincer, T. J.**, Moore, L. R., Moutin, T., Rappé, M. and Webb, E. A. “Phytoplankton in the oligotrophic ocean substitute phospholipids in response to phosphorus scarcity.” (2009) Nature 458, 69-72. \*\*Must Read Faculty of 1000 rating\*\*

16. **Mincer T. J.**, Church M. J., Taylor L. T., Preston C., Karl D. M., DeLong E. F. “Quantitative distribution of presumptive archaeal and bacterial nitrifiers in Monterey Bay and the North Pacific Subtropical Gyre.” (2007) Environmental Microbiology 9, 1162-1175.

15. Frigaard, N. U., Martinez, A., **Mincer, T. J.** & DeLong, E. F. “Proteorhodopsin lateral gene transfer between marine planktonic Bacteria and Archaea” (2006) Nature 439, 847-50. \*\*Exceptional Faculty of 1000 rating\*\*

14. Hallam, S. J., **Mincer, T. J.**, Schleper, C., Preston, C. M., Roberts, K., Richardson, P. M. & DeLong. E. F. “Environmental genomic reconstruction of potential carbon assimilation and ammonia oxidation pathways in marine Crenarchaeota” (2006) PLoS Biology 4, 520-536.

13. DeLong, E. F., Preston, C. M., **Mincer, T.**, Rich, V., Hallam, S. J., Frigaard, N. U., Martinez, A., Sullivan, M. B., Edwards, R., Brito, B. R., Chisholm, S. W. & Karl, D. M. “Community genomics among stratified microbial assemblages in the ocean's interior” (2006) Science 311, 496-503. \*\*Recommended Faculty of 1000 rating\*\*

12. **Mincer, T. J.**, Jensen, Paul R., & Fenical, William H. “Targeted amplification of specific actinomycete 16S ribosomal gene sequences from marine sediments using a nested PCR technique.” (2005) Applied and Environmental Microbiology 71, 7019-28.

11. Maldonado, L. A., Fenical, W., Jensen, P. R., Kauffman, C. A., **Mincer, T. J.**, Ward, A. C., Bull, A. T. & Goodfellow, M. “Salinispora arenicola gen. nov., sp. nov. and Salinispora tropica sp. nov., obligate marine actinomycetes belonging to the family Micromonosporaceae” (2005) International Journal of Systematic Evolution and Microbiology 55, 1759-66.

10. Jensen, P. R., **Mincer, T. J.**, Williams, P. G. & Fenical, W. H. “Marine actinomycete diversity and natural product discovery” (2005) Antonie Van Leeuwenhoek 87, 43-8.

9. Jensen, P. R., Gontang, E., Mafnas, C, **Mincer, T. J.** & Fenical, W. H. “Culturable marine actinomycete diversity from tropical Pacific Ocean sediments.” Environmental Microbiology (2005) 7, 1039-48.

8. **Mincer, T. J.**, Spyere, A., Jensen, P. R. & Fenical, W. H. “Phylogenetic and secondary metabolite analyses of marine bacteria belonging to the genus Saprospira.” (2004) Current Microbiology 49, 300-7.

7. Jensen, P. R., **Mincer, T. J.**, Fenical, W. H. “The true potential of the marine microorganism.” Current Drug Discovery (2003) 17-19.

6. Feling, R. H., Buchanan, G. O., **Mincer, T. J.**, Jensen, P. R. & Fenical, W. H. “Salinosporamide A, a potent proteasome inhibitor from a novel microbial source.” (2003) Angewandte Chemie, International Edition 42, 355-7.

5. **Mincer, T. J.**, Jensen, P. R., Kauffman, C. A. & Fenical, W. H. “Widespread and persistent populations of a major new marine actinomycete taxon in ocean sediments.” (2002) Applied and Environmental Microbiology 68, 5005-11. \*\*Exceptional Faculty of 1000 rating\*\*

4. Zhong, Z., Caspi, R., **Mincer, T.**, Helinski, D., Knauf, V., Boardman, K., Wilkinson, J. E., Shea, T., DeLoughery, C. & Toukdarian, A. “A 50-kb plasmid rich in mobile gene sequences isolated from a marine Micrococcus.” (2002) Plasmid 47, 1-9.

3. Johnson, E. P., **Mincer, T.**, Schwab, H., Burgin, A. B. & Helinski, D. R. “Plasmid RK2 ParB protein: Purification and nuclease properties.” (1999) Journal of Bacteriology 181, 6010-8.

2. Sobecky, P. A., **Mincer, T. J.**, Chang, M. C., Toukdarian, A. & Helinski, D. R. “Isolation of broad-host-range replicons from marine sediment bacteria.” (1998) Applied and Environmental Microbiology 64, 2822-30.

1. Sobecky, P. A., **Mincer, T. J.**, Chang, M. C. & Helinski, D. R. “Plasmids isolated from marine sediment microbial communities contain replication and incompatibility regions unrelated to those of known plasmid groups.” (1997) Applied and Environmental Microbiology 63, 888-95.

**Other Publications:**

* Linda Amaral-Zettler, Erik Zettler, Tracy Mincer. “Welcome to the Plastisphere: ocean-going microbes on vessels of plastic” The Conversation (a collaboration between editors and academics to provide informed news analysis and commentary.) Published: July 18, 2013.

*This was an invited contribution to the high-quality online journal ‘The Conversation’ after the publication of* [24]*. This outreach effort was a collaborative document and received much positive online commentary by the general public and subsequent contact from policy makers.*

**Professional Talks and Academic Panels (Since at WHOI) (\*scheduled to be performed):**

* \*Invited Speaker, Environmental Geology & Geochemistry Seminar (EGGS) Lecture Series in the Geosciences Department at Princeton University. “The importance of methanol in geochemical cycling.” March 30, 2017
* Invited speaker, colloquium at the NASA Goddard Space Flight Center, Greenbelt MD. “The ‘Unnatural History’ of Plastic Marine Debris.” November 16, 2016
* Invited speaker, Canadian Society for Chemistry (CSC) 2016 Conference, Halifax “Taking a closer look at phytoplankton interactions with heterotrophic bacteria: Basic science complementing discovery of pharmacologically relevant metabolites.” June 5-9, 2016.
* Invited speaker, Gordon Research Conference on Marine Natural Products, “Listening in on Microbial Chemical Conversations in the Phycosphere.” March 6-11, 2016.
* Invited speaker, University of Minnesota. “Microbial efflux pump inhibitors from natural sources: pharmacologically important molecules with potential ecological relevance in microbial interactions.” November 19, 2015.
* Invited speaker, University of Massachusetts, Dartmouth. “Life in the Phycosphere- a Natural Products Perspective.” October 28, 2015.
* Invited speaker, “Methanol Production by a Broad Phylogenetic Array of Marine Phytoplankton” Marine Microbiology Seminar Series, Rutgers University. October 26, 2015.
* Invited speaker, University of Wisconsin, Madison, School of Pharmacy seminar series, April 13, 2015. “Microbial efflux pump inhibitors from natural sources; pharmacologically important molecules with potential ecological relevance”
* Invited speaker, University of Chicago, Department of Geology seminar series, April 10, 2015. “Oxygenated volatile organic carbon species evolved from phytoplankton: a conserved phenomenon linked to photobiology”
* ASLO, Granada, Spain, February 2015 Oral Presentation and session Organizer and Co-Chair. “Ethylene production and response in marine phytoplankton: a potential universal signal”
* Invited speaker, University of Maryland, Horn Point Laboratory Seminar Series, December 3, 2014. “Methanol production by phytoplankton: biogeochemical significance and implications for microbial interactions”
* Invited speaker, Scripps Institution of Oceanography, University of California, San Diego. Marine Ecology Seminar Series, Special Invitation by Biology Department Graduate Students. “Microbial Interactions with Plastic Marine Debris: An Unnatural History” April 23, 2014.
* Invited speaker, University of Connecticut, Marine Sciences, Avery Point, Connecticut. Spring 2014 Seminar Series. “Microbial Interactions with Plastic Marine Debris: An Unnatural History” March 28, 2014.
* ASLO 2014 Ocean Sciences Meeting, Honolulu, HI, February, 24, 2014. Oral Presentation and session Organizer and Co-Chair. “Investigation Of Microbial Adherence And Virulence Factors Associated With Open-Ocean Derived Plastic Marine Debris: *Vibrio* Bacteria as a Model System.”
* Invited speaker, Massachusetts Institute of Technology, Microbial Systems Seminar Series. “Production of Methanol by a Wide Phylogenetic Range of Phytoplankton” May 8, 2013.
* Invited speaker, William and Mary-Virginia Institute of Marine Science, Environmental Chemistry Seminar. “Microbial interactions with plastic debris in the marine water column” November 9, 2012.
* Invited speaker, University of Southern California. “Determining the supply side of methylotrophy” February 24, 2011.
* Invited speaker, University of Rhode Island, Graduate School of Oceanography, February 7, 2010. Talk Title: “Deciphering the supply side of methylotrophy”
* Invited speaker, Massachusetts Maritime Academy, April 9, 2010. Talk Title: “Marine Natural Products”
* Invited speaker, University of Rhode Island, Graduate School of Oceanography, “Marine microbial natural products discovery” December 16, 2009
* Invited speaker, University of North Carolina, Chapel Hill. “Particle Associated Microbes in the Marine Water Column: Unique Communities or Random Epibionts?” November 5, 2008.
* Invited speaker, Gordon Conference on Oceans and Human Health, June 29 - July 4, 2008, Tilton, New Hampshire. Talk Title: “Identifying Potential Threats and Benefits to Human Health from the Ocean Using Genomic Tools”

**Scientific and Community Outreach:**

* Mentor of Falmouth MA Science Fair Student project, Falmouth Academy student Brianna Feldott (this student received Honorable Mention and a Special Award in the local competition and First Place and a Special Award at the regional level)
* Mentor of Falmouth MA Science Fair Student project, Falmouth High School student Catherine Stark (this student received First Place in the local and Second Place in the regional competitions as well as First Place at the Massachusetts State Science and Engineering Fair).
* Student Spaceflight Experiments Program: sponsor of project by students from Montachusett Technical High School, Montachusett MA. This project titled “Effect of *Arthrobacter* on polyethylene decomposition rate in microgravity” successfully sent to the International Space Station on the first SpaceX Dragon Mission October 28, 2012.

**Supervision at WHOI:**

*Staff Supervisor:*

• Misty Miller, Research Assistant II, full-time October 2009 – April 2010 (Currently a Nurse Practitioner)

• Kristen Rathjen, Research Assistant III/ Associate II, full-time November 2011-July 2014 (Currently part-time technical staff at WHOI)

• Athena Aicher, Research Assistant I/II, full–time March 2012-March 2015 (Currently enrolled at the International Yacht Restoration School)

• Hilary Ranson, Research Assistant I/II, January 2013-May 2013 Part-time – Full time May 2013- May 2015 (Currently a Ph.D. candidate at University of Rhode Island)

• Dr. Kristen Whalen, Research Associate III, November 2012– Present – Full time (Recently accepted a faculty position at Haverford College, PA, School of Biology)

• Catherine Stark, Part-time lab helper, June-August 2013 (Recently graduated from Yale and pursuing post-graduate studies in biochemistry at U.C. Berkeley)

• Alex Flynn-Carroll, Research Assistant II, July 2015–present– Full time

*Academic Advising:*

• Shiye Zhao, Guest Student, Ph. D. candidate, East China Normal Univ. Shanghai, China, September 2014—present

* Dr. William Orsi, Guest Investigator, University of Maryland, Horn Point, September 2014- December 2015 (Currently faculty at University of Munich, Germany)

• Elena Perry, WHOI Summer Student Fellow – Summer 2014 (Currently a Ph.D. candidate at CalTech)

• Dr. Kelsey Poulson-Ellestad, Postdoctoral Researcher, June 2013—June 2015 (Dr. Poulson-Ellestad is currently Faculty in the Biochemistry Department at Roosevelt University, Chicago, IL)

• Vincent Guzzetta, WHOI Summer Student Fellow, May-August 2013. (currently technical staff in a biomedical laboratory at University of Chicago)

• Athena Aicher, Guest Student, June–July 2011

• Dr. Emelia DeForce, Guest Investigator, July 2011 (Currently a group leader in the biotechnology sector)

• Alex Flynn-Carroll, Undergraduate Guest Student, May–August 2011 (Currently a technician in my laboratory)

• Dr. John LaFleur, M.D. – University of Massachusetts MD/PhD candidate Guest Student, September 2009–January 2011 (Currently practicing General Medicine)

• Tanner Miller, WHOI Winter Undergraduate Fellow, January 2010—and, WHOI Summer Undergraduate Fellow May–August, 2010 (Currently an MD practicing Internal Medicine)

• Paige Roberts, WHOI Summer Guest Student, May–August 2010 (Currently technical staff in a biotechnology laboratory at U.C. Santa Barbara)

• Emmanuel Vázquez, WHOI Summer Guest Student, January – April 2010 (Currently a Ph.D. candidate at University of Wisconsin, School of Pharmacy)

• Dr. Amy Apprill – WHOI Postdoctoral Scholar Fellow, September 2009-December 2011 (Dr. Apprill is now a member of the WHOI Marine Chemistry and Geochemistry Scientific Staff)

• Rose Kantor – WHOI Summer Student Fellow – Summer 2009 (Currently a Ph.D. candidate at U.C. Berkeley, Dept. of Plant and Microbial Biology)

**Professional Activties:**

*WHOI (Non Education Related):*

Marine Chemistry and Geochemistry Safety Committee 2011–present

Reviewer: Ocean Life Institute Grant Proposal Panel, 2012

*Outside WHOI (Other than Attendance at Society/National Meetings):*

* VII Nicaraguan Biotechnology Conference Marine Biodiversity and Genomics in Central America May 8 & 9, 2014 Talk title: “A Natural History Approach to Natural Products: Microbial Chemical Ecology Aiding Drug-Discovery”— Invited presenter and special Advisory Panel Participant May 10, 2014.
* Panelist/Reviewer, NIH-International Cooperative Biodiversity Group Study Section, April 2014, Chevy Chase, MD.

**Participation in Education:**

*Teaching:*

* Invited Lecturer: Johnson and Wales University, Providence RI, March 28, 2016. “The Importance of Oceanography, Chemistry and Microbiology in the Quality of Seafood.” Two, three hour lectures to faculty chefs, food scientists, and students at one of the premier culinary schools in the United States.
* Invited organizer and Instructor: NSF-PEER Nicaraguan Biotechnology Marine Biodiversity and Genomics Workshop Organizer August 17-23, 2014. Five-day lecture and workshop on cultivation of diverse microbes, merging biotechnology and chemical ecology.
* Guest Lecturer: MIT/WHOI Marine Organic Chemistry, April 11, 2013, “Marine Toxins and Natural Products”
* Invited Lecturer: Massachusetts Maritime Academy, April 9, 2010. “Marine Natural Products”
* Co-Instructor: MIT/WHOI 7.439: Topics in Marine Microbiology, Fall 2009, Functional Analyses of Microbial Communities: Insights into Activities, Pathways, and Interactions
* Guest Lecturer: MIT/WHOI Marine Organic Chemistry, 4-23-09, “Marine Toxins and Natural Products”
* MIT 1.018/7.30J Fall 2007, Lead Teaching Assistant and alternate Instructor, Ecology I – The Earth System

*Education and Academic Service:*

• WHOI MC&G Postdoctoral Fellowship Committee Representative 2014-2015

• MIT-WHOI Joint Program Ph. D. Thesis Committee Member (6 total): Oscar Sosa (2012-2016), Amalia Aruda (2011-2015), Kathleen Munson (2010-2014), Laura Hmelo (2008–2010), Kristen Pangallo, (2008-2010), Annette Hynes (2008-2009)

• MIT-WHOI Joint Program Ph. D. Thesis Defense Chair (2 total): Jessie Kneeland (2011), Adam Rivers (2009)

• MIT-WHOI Joint Program Marine Chemistry and Geochemistry Student Faculty Mentor, 2010-2011

• WHOI Summer Undergraduate Fellow Department Coordinator – 2010-2012

• MIT-WHOI Joint Program JCCO General Exam Coordinator, 2010-2011

• MIT-WHOI Joint Program first year student JCCO Advisor, 2010

• Marine Chemistry and Geochemistry Summer Student Fellow Representative, 2010- 2013

• MIT-WHOI Joint Program Student Generals Paper Reviewer for 4 Ph. D. candidate students

**Cruise and Field Participation:**

*R/V Alpha Helix*, Bering Sea, AK, September – October 1999, 27 days

*R/V Seward Johnson*, Bahamas, July, 2000, 14 days

*R/V Seward Johnson*, Bahamas, July, 2001, 14 days

*R/V Seward Johnson*, Bahamas, July, 2002, 14 days

*M/Y Golden Shadow*, Sea of Cortez, Mexico, March – April 2000, 21 days

*M/Y Golden Shadow*, US Virgin Islands, January 2001, 14 days

*R/V Kilo Moana*, Hawaii, USA, HOT-179 cruise, March, 2006, 5 days

*R/V Clifford Barnes*, Co-Chief Scientist, cruise number 2009-043, June, 2009; Clayoquot Sound, Vancouver B.C., 10 days

*R/V Kilo Moana*, Co-Chief Scientist, July, 2010; Station ALOHA (KM 10-13)

*R/V Knorr*, April, 2012, Woods Hole MA to Bermuda (KN207-01), 14 days

Summer, 2013: Weekly sampling of Great Sippewissett Salt Marsh, Falmouth MA

Fall, 2014: Monthly sampling of Quissett Beach, Falmouth MA

Summer, 2015: Weekly sampling of Great Sippewissett Salt Marsh, Falmouth MA

**Published Presentation Abstracts (since 2010)** (\*Presenter, **+**Advisee in Mincer Laboratory)**:**

Harvey, E. L.; Poulson-Ellestad, K.**+**; **Mincer, T.**; Van Mooy, B.; Bidle, K. D.; Johnson, M.; “The Combined Influence of Morphology and Chemistry in Mediating Heterotrophic Protist Grazing Interactions” Aquatic Sciences Meeting of the American Society of Limnology and Oceanography, Grenada, Spain, February 2015.

Zettler, E. R.; **Mincer, T. J.**; Slikas, B.; Boyd, G. **+**; Melvin, W. **+**; Fields, J.; Saleem, K.; Dooley, K.; Amaral-Zettler, L. A.; “Microbe-Microbe, Microbe-Animal Interactions in the Plastisphere” Aquatic Sciences Meeting of the American Society of Limnology and Oceanography, Grenada, Spain, February 2015.

Taylor, S.; Cramer, K.; Dooley, K.; Lourie, W. **+**; **Mincer, T. J.**; Amaral-Zettler, L. A.; Zettler, E. R.; “Short-Term Microbial Community Assembly on Plastic Marine Debris: Evidence from Experimental Colonization Studies in the Waters of Woods Hole, MA, USA” Aquatic Sciences Meeting of the American Society of Limnology and Oceanography, Grenada, Spain, February 2015.

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